
Federal Aviation Administration (FAA)

Project Management Current State Assessment

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Current State Assessment
ACB Project Management (PM) Practices

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Executive Summary

This study was conducted to establish a baseline against which future performance can be measured. It was also intended to obtain feedback and suggestions on current practices to help improve Project Management (PM) application from practitioners and senior management. The study focused on current practices in five major areas of PM maturity assessment including: policy and standard methodology, documented planning process, use of project management software tools, training and competency development, and established structure and support.

The result of this baseline study shows that the Office of Innovations and Solutions currently practice enterprise-wide Project Management at Project Management Maturity Model (PM³) level 1. At PM³ level 1, the organization is practicing Project Management in an ah-hoc manner. The study found that does not have any established documented repeatable processes and has no formal PM policy, both of which are required features of level 2, just as in the FAA iCMM. Individual projects teams adopt different methods in managing their projects with some leaning more towards PM³ level 2 than 1.

- ✚ IES needs to issue and enforce a project management policy that will require the use of a standard PM methodology.

Most projects in currently do not have formal project plans and schedules. It was found that managers do not have the necessary skilled resources to develop and maintain project plans and schedules. Managers will be willing to adopt PM principles only if help is provided for them to develop project schedules and integrated project schedules.

- ✚ Each project in must be assigned to an individual scheduler to create and manage the schedules for the respective projects. The management team may choose one of two models presented in this report.
- ✚ Implement an integrated scalable project management system that can provide the capability for project/program coordination.
- ✚ Provide training and explain benefits of standard Project Management practices to managers and employees.

The survey found that most project schedules are not developed or managed with project management software tools. In projects where PM software tools are used, some of the users do not have formal PM basic training and PM software tools training.

- ✚ Provide basic Project Management training and relevant software application or tools training tailored to all categories of employees.
- ✚ Adopt Primavera suite as the primary Integrated Enterprise Project Management System (IEPMS) to provide the capability for project/program coordination.

In terms of PM competency development and training, most managers were found to have undergone basic PM training. However, the need for refresher courses was overwhelmingly emphasized by all survey respondents.

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- ✚ A competency development plan should be developed to provide various levels of PM training to all employees. Management needs to exercise caution in requiring PMP® certification for positions.
- ✚ Provide training sponsorship to employees who are currently interested in pursuing the PMP® certification. Provide tailored competency development up to PMP® certification to satisfy various levels of practitioners. The PMST/G should create and maintain a project management skills database for effective resource management.

The study found that currently has a weak matrix structure which is capable of supporting effective Project Management implementation only if all employees in the organization understand and appreciate their individual and collective roles. The study also found that some employees do not understand or do not agree with their roles and responsibilities.

- ✚ IES needs to formally establish a PM structure by adopting the Project Management Support Office Model (PMSO).
- ✚ The Project Management Support Team/Group should be responsible for and capable of providing all PM expert support needs. Visibility and authority to perform effectively is of critical importance for a successful value added implementation.
- ✚ IES needs to formally designate Project Management roles and clarify responsibilities.
- ✚ Provide training sponsorship to employees who are currently interested in pursuing the PMP® certification.

Considering the current ATO direction as a performance based organization, the need for measurements have become more critical than ever before in demonstrating value to customers and sponsors. Therefore, management and employees need to change the current culture of ad-hoc PM practices to a more deliberate application of standard Project Management principles to project activities.

Data Analysis and Recommendations

There is significant evidence from the study that most organizations are willing to adopt Project Management principles if given the direction and leadership to implement the initiative. Although it is difficult to correlate the responses of employees interviewed to potential action at actual implementation, there is a high likelihood that managers will support the Project/Program Management initiative.

Recommendation: The Managing Director needs to issue and enforce a Project/Program Management Policy.

There was overwhelming evidence that employees need a policy direction from IES. The consensus among every practitioner interviewed formally and informally was that does not have a standard methodology for practicing project management. It was also evident from the study that the organization does not have any Project Management policy or an implementation plan which employees said they needed.

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Recommendation: IES needs to issue and enforce a Project Management Policy that requires the use of standard PM Methodology or Guidance, and a PM strategic and tactical plan.

Currently, most people make attempt to practice Project Management by developing task list, using Program Directive as a basis for tracking their projects, and keeping track of schedules. Some of the projects have good schedules managed by support personnel. However, it was obvious from the study that there was no deliberate effort by most managers to develop project plan and schedules with dependencies.

Recommendation: Provide training and briefings to managers and employees to help them understand the benefits of developing project plans and using standard methodologies for developing plans and schedules. Provide templates to help employees in developing project plans.

Most managers that currently have project schedules overwhelmingly requested for help with integrating multiple project schedules. This will make it more efficient for them to coordinate projects at program levels and update sponsors or customers with timely program information for decision making.

Recommendation: Develop an integrated scalable Project Management system that will provide the capability for Program Managers to coordinate the programs within their portfolios more efficiently, while providing project level schedule management tool to managers at project levels.

Adopt Primavera suite as the primary Integrated Enterprise Project Management System (IEPMS) to provide the capability for project/program coordination.

Although the percentage of project practitioners using software application appears high, the use of project management software tool is actually marginal. Majority of the people using software applications are using word processing applications, spreadsheets, and other non-project management applications. The study also found that only a marginal number of projects have individual support personnel to develop and manage schedules. Majority of the people that use Project Management software tools for schedule development and maintenance (mostly MS Project) do not have formal training in project management principles and the software tool they use. Only a negligible number of people use the Primavera tool for scheduling and no one currently uses the manager's portion of the toolset.

Recommendation: Provide basic Project Management training and relevant software application or tools training tailored to all categories of employees – Program and Project Managers, Division Managers, Domain Directors, and other employees. Coaching and mentoring should be incorporated into the training PM plan.

About two out of three projects have people assigned to develop and manage the schedules. However, about 90% of the people assigned have no formal Project Management training or PM software tools training. Actual schedules are mostly maintained by contract support personnel where available.

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Recommendation: All projects with in must be assigned to an individual scheduler to create and manage the schedules for the respective projects. The Project Management Support Team/Group (PMST/G) recommended in this report may support this function in one of two ways. The PMST/G may provide direct support to projects to include direct schedule development and maintenance for projects managers. In this model, PMST/G personnel and support contractors will charge their time to the appropriate project codes. The alternative is an indirect support where each project could retain their own schedulers and receive only needed expert support from the PMST/G. In this case, the time spent on support to projects by the PMST/G personnel will be charged to the appropriate project codes.

Upon establishment, the PMST/G will be responsible for coordinating all project schedules within for the purpose of helping managers to more efficiently coordinate and manage their portfolios and project schedules. They will provide assistance to schedulers and managers in developing and tracking schedules as well as interpreting performance reports including earned value reports, cost performance index, schedule performance index and variances. The IES or the management team needs to choose one of the two models presented in this report or another feasible alternative.

The study found that majority of current managers have had one form of project management training or another. Virtually all of them indicated interest in refresher courses to update their skills. There was no clear indication as to whether the new managers and leads have any Project Management training. Most of the managers interviewed could not confirm how many of their employees if any have been certified as Project Management Professionals. Majority of the Division Managers and some DDs were however able to suggest names to be included in the training priority list. Some of them also volunteered to take more courses and the PMP® certification test. There was evidence that some individuals have decided on their own to pursue the PMP® certification.

Recommendation: The people who are currently interested in courses leading to PMP® certification should be encouraged, by supporting them through training sponsorship. The Project Management Training Plan should be tailored to satisfy various levels of competency development up to the PMP® certification and certification maintenance. All employees must be encouraged to participate in basic PM training. A project management skills database should be created to keep track of changes in the organization's PM competency level for effective resource management.

The survey found that IES has a designated Project Management Lead. However, it was evident from the survey interviews that over 90% of managers and employees recognized the Staff as an expert in PM but without authority to implement the program. There was a consensus among all interviewees (formal and informal) that the staff trying to implement the PM initiative lacked the level of support from IES to perform effectively.

Recommendation: IES needs to formally charter or establish a PM Lead role with appropriate authority and support to effectively implement the Project Management initiative.

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Although some Project Management functions are currently performed by designation or by ad-hoc assignment, this study found that no formal role currently exists. This lack of formal roles makes the practice of PM a “fire drill” process without a structure. This contradicts the effort to establish a structure that supports effective project performance measurements.

Recommendation: IES needs to formally designate the following PM roles with the appropriate responsibilities: Program Manager, Project Manager, Resource Manager, Project Lead, and Project Management Standards Manager. These roles must not be misconstrued as job positions unless designated as such by IES.

Although most interviewees believed that the current structure can support Project Management, they also perceived Project Management as an “invisible” discipline in ACB. In order for PM implementation to succeed, it must be located at a visible level within the organizational structure with senior management support at the highest level possible. The PM team currently exists as a “virtual” team that makes Project Management activities difficult to coordinate. Some people working on different pieces (WBS elements) of PM consider their roles as separate and independent of the enterprise PM system which has been counterproductive and costly.

Recommendation: In order to be able to demonstrate value added to strategic goals and FAA mission, IES needs to establish a Project Management Support Team/Group with credible team members and leadership. The team should be capable of providing PM expert support needs to the organization especially under the current ATO direction that requires specific measurements to show value added.

The team should be given the visibility and authority to perform effectively and be held accountable to specific scorecard or metrics as any other program. IES needs to charter the PM Team/Group to institutionalize PM in and assure effective coordination and integration of all components of Integrated Enterprise Project Management System (IEPMS).

This study found that currently implement Project Management through a Staff Role informally adopting the Project Management Support Office (PMSO) model. However, the current Staff Role performance is evolving into the Enterprise Administrative role stage in the evolutionary model.

Recommendation: To achieve the best PM value, IES needs to formally establish the PM structure using a Project Management Support Office Model by adopting an evolutionary implementation approach. This approach progresses in a continuum that starts as a Staff Role and evolves through the Enterprise Administrative to a Line role at full implementation. As the roles mature and shift from left to right the responsibilities cumulatively expand. A detailed description of the PMSO model will be discussed in a different presentation.

The current ATO drive for measurement should be an incentive for to formally move into the Enterprise Administrative Role to take advantage of the expertise that currently exists in-house to implement this model, and achieve the desired value for a more effective PM coordination. This model has been successful in both private and public sectors including

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New York State¹ government. Lockheed Martins and other corporations are currently trying to implement this model.

The most important performance metrics that IES uses to determine a project's success is on time delivery and completed within budget. IES is also interested in product meeting the technical performance as well as coordinated delivery of products. To achieve this goal, Program Managers need to have a system that facilitate their ability to schedule product delivery in such a way as to enhance positive impact to field operations and NAS availability.

Recommendation: A well coordinated integrated PM system needs to be implemented in to provide Program and Project Managers the capability to coordinate and communicate program information within ACB, and with customers and sponsors as needed. The Primavera toolset has the potential to provide this capability when implemented.

This study found that IES will require PMP® certification for some positions in the future and also has a strategic target of training 100% of employees in Project Management.

Recommendation: A competency development plan should be developed to provide various levels of PM training, coaching, and mentoring to all employees. This will facilitate understanding and a more effective implementation of this initiative. Caution should be applied in requiring PMP® certification for positions, considering the requirements and test involved in obtaining the certification.

Also, PMI™ emphasizes that PMP® certification does not guarantee the holder's success in managing a project. Instead, it shows that by passing the exam and meeting other requirements, the holder has demonstrated sufficient knowledge in the application of Project Management principles to be successful in managing projects. This knowledge must be combined with the enterprise (FAA in this case) project systems and other skills to successfully manage projects.

Therefore, it is worthy of note here that certification may only be helpful to the organization if people acquire it voluntarily by accepting the ethics of the PM profession and practicing it accordingly. It could be counter productive if employees feel compelled to take the PMP® certification merely to retain their job position or to secure a promotion. In such situations, there is a high likelihood that such people may become more resistant to change.

Project Overview

This study was conducted to collect data that will help to establish the level of Project Management practices in the Office of Innovations and Solutions. This report discusses the study methodology, findings, and recommendations from the study on how to effectively implement the Project Management initiative. The approach discusses a hybrid of stratified combined with cluster sampling as the method used to conduct the study. The findings provides detailed analysis of the raw data, while the analysis and recommendations provides

¹ Tim W. Jaques. PM Network, January 2003. "A New York State of Mind."

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an assessment of the current state from the findings with recommendations on how to achieve the desired results of effective and efficient Project Management implementation.

This baseline report will provide IES with the necessary data supported information to make decisions on institutionalizing Project Management, based on a sound foundation. The study focused on current practices in five major areas of PM maturity assessment including: policy and standard methodology or processes, documented planning process, use of project management software tools, training and competency development, and established structure and support. This report will provide a basis for measuring the performance of the Project Management Support structure when formally established.

The recommendations include implementing appropriate Project Management training and competency development programs, and tools for implementing the integrated Enterprise Project Management System. The recommendations are based on the survey findings, research findings from other Project Management information sources, and the author's professional work experiences.

Data Collection Approach

The method used for this study is a hybrid of stratified and clustered sampling (Eigbe technique). Considering the critical need and time limitation of establishing a baseline prior to full Project Management implementation, I divided into strata and clusters. The first stratum includes all Project Team Members, Team Leads, Group Managers, Domain Directors (DD), Business Development Director (BDR), and Division Managers (DM). Each of these groups forms a cluster that was represented by eighteen (18) respondents, made up of all DDs, BDR, and DMs. The second stratum includes the Managing Director and Staff Office Managers and personnel. Three (3) respondents including IES and IES Staff Managers were selected to represent this stratum.

Attempts were made to interview all members of each cluster as a statistical requirement for this methodology but as in most surveys, less than 100% responded to the personal interview questionnaires. About 76% (number of DD fluid for calculation) of individual selected for this survey responded to be interviewed (pie chart attached). Two separate structured questionnaires were designed and used for the respective stratum – Program/Project Practitioner's Questionnaire and Senior Management Questionnaire (including Staff) attached. We scheduled and conducted personal interviews using the structured questionnaires with follow-up questions as necessary. The responses from all respondents were collated and analyzed using simple spreadsheet tools for the numeric data analysis. Details of the findings, analysis and recommendations are discussed in the forgoing sections.

Findings - Current State of Project Management (PM)

Division and Domain Responses

Forty-three percent (43%) of the respondents are aware or have seen the draft Project Management policy and/or process guidance. None of the respondents has tried to comply

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with or apply the unsigned policy and the PM process. Some of the respondents noted that the policy was not signed and thus not enforceable.

Eighty-six percent (86%) of the respondents have documented plans and schedules in some form - formal plans or listing of milestones. About 60% of these respondents said they have more of informal plans, listing, and adoption of the high-level Program Office plan than formal project plans. All projects within the EnRoute Domain have documented plans and schedules. Weather & FSS domains develop and track fourteen projects schedules derived from Program Directives. Some of these projects comply with the FAA iCMM model in documenting their plans while the Real and Virtual Environment Division applies the ISO 9000 standard.

Over 80% of projects that have schedules use the PDs as the basis for their schedules while others mainly adopt the Product Teams' high-level plans and schedules. Some project leads update group manager weekly in a documented or verbal status report. This survey revealed that about three programs develop WBS for managing their schedules. All the respondents noted that there was no current standard methodology for practicing Project Management in. Respondents noted that some programs have contractor support for Project Management while others do not because of funding limitations.

Most respondents said there was no integrated schedule coordination across programs, which is needed for effective management of product delivery. Most of the respondents said they totally support the current Project Management initiative and its successful implementation.

Fourteen percent (14%) of the respondents do not develop any project plan or schedules. Some of the respondents said they do not track schedule but simply looked forward to the delivery dates. Some of them will only develop plan if given the direction to practice PM.

Seventy-nine percent (79%) of respondents said they use either Project Management software tool or other application software. The Project Management software tool mostly in use was the Microsoft Project. About 75% of the people interviewed used Microsoft Word and Excel for listing activities and milestones. A limited percentage of people currently use part of the primavera suite. Twenty-one percent (21%) of respondents do not use any software application because they either do not have plans and schedules or they adopt "paper and pencil" method.

Sixty-four percent (64%) of respondents have individuals assigned to create and manage project schedules. About 90% of the respondents stated that the people assigned to manage schedule have no formal Project Management training or PM software tools training. Thirty-six percent (36%) of the respondents have no one assigned to develop and maintain schedules.

The survey found that four employees have been certified as Project Management Professionals (PMP®) by the Project Management Institute (PMI™). The respondents indicated that seven (7) employees at various levels are currently pursuing or interested in taking the PMP® certification course and exam. Some respondents indicated that they will only take the PMP® certification course and exam if it is required for their career

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advancement or will impact their current job position. About 90 percent of the managers (Division, Domain, and Business Development) interviewed would like to take the PMP® certification course and exam.

The survey respondents suggested more than fifty (50) names of employees that need priority consideration in Project Management training implementation starting with basic PM training to PMP® certification. Respondents observed that scheduling training courses that involve technical personnel is a major problem because of their frequent official travels. They suggested making training schedule available long enough to allow employees to plan for participation. They also suggested training programs that will meet varied needs since some employees have formal PM training while others do not have any.

The survey revealed that about forty percent (40%) of all employees including managers have undergone Project Management or PM-related training. The survey respondents requested refresher courses for the people that have previously taken Project Management courses. Some respondent suggested limiting the target for PMP® preparatory training and certification to about eight (8) in the first year. Another suggestion was for the organization to train potential project managers on Project Management techniques prior to assigning them to projects.

The most common method of project communications between the survey respondents and their customers are through personal contact, telecon, and electronic exchange of data. Some of the respondents would prefer electronic access to project data, and will adopt paper and personal contact as follow-up methods. The respondents who prefer this method of data access want to be able to track and manage project funds more efficiently – how much has been committed, how much has been obligated, and how much is available.

About 95% of respondents indicated their need for help in developing project schedules and interpreting outputs. They suggested developing an integrated system that was simple to use, to help them coordinate groups of projects within their portfolios – domains. Some respondents claimed that PM is “not applicable” to their projects because they work on short duration projects of one to three months, especially the R&D projects.

About 90% of respondents had problems with lack of a deliberate plan to provide adequate resources for project management, where managers show interest in adopting PM principles. They stated that request for PM resources was too difficult to justify and thus those managers adopt PM have to “hide the cost of such resources” from upper management. Managers have to prove that it is cost effective to do what is considered “extra stuff” – project management. When a project is initiated, Engineers are provided but planning infrastructure is not provided. They suggested a change in this culture to a more deliberate planning of project management implementation.

Ninety-nine percent of the survey respondents stated that customers are mostly interested in meeting milestones at cost – product delivery on schedule and within budget. They are also interested in knowing the issues and concern as well as the data that support such issues.

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In response to request for suggestions on PM implementation, some respondents had issues with what they considered “inconsistent requests from IES and ACB-3” that tend to place more workload than necessary on them. They stated that frequent report format changes, trying to make the work fit into the report format, and some automation are causing more problems than helping to increase value. They explained that the administrative burden of reporting – “the same input in every place has no added value” to their product or service delivery.

About 98% of respondents believe that the structure can support project management implementation if IES wants to implement the program. About 95% of respondents suggested that IES needs to establish a Project Management structure that will provide oversight – coordinate schedule, provide guidance on process, plans, training, pick a PM software tool and train people to use it, and help with expert Project Management direction. The PM structure should help managers and employees to enhance their skills in Project Management and assist them to prepare for PMP® certification. The structure should respond to calls for questions and support, providing briefings and sources of PM career and development information.

About 95% of respondents stated that IES needs to issue a policy that will require the establishment of a PM standard and ensure that it is implemented. He needs to formally sign a charter to make the role of PM support structure known to employees. An strategic Plan should be developed to include Project Management goals. Most of them suggested that a final implementation plan for Project Management need to be developed and made available to all employees. IES needs to make people understand the role of PM and follow-up with managers to ensure compliance. Some of the respondents noted that many people have been doing things the same way for a long time and thus may be a little harder to get them to change.

Some respondents reiterated the need to ensure that all employees understand the concept of Project Management especially basic PM processes, cost estimating, schedules and dependencies, and earned value management system (EVMS). IES needs to explain the benefits of PM to all employees and disseminate IES PM goals down to the working level. Others want IES to bring the managers on board the PM initiative and it will trickle down to the working level.

About 90% of respondents want IES to focus on policy issues, overall direction, and to ensure that resources including PM resources are available to implement programs. They wanted Divisions managers to manage resources while Domains Directors monitor as opposed to managing programs. Respondents wanted a PM support structure that will coordinate plans with Business Development Director (BDD).

About 10% of respondents want to put in their PDs and not have to do any other data entry. They noted that most people in the technical areas have no management skills and will appreciate anything that will help them perform more efficiently in their jobs. More people in the technical area need to be certified as PMP®s so that they can effectively apply and obtain the benefits of PM principles.

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More than 95% of those interviewed reiterated that PM resources are never planned for in projects and emphasized that this culture must change – must plan and budgeted for PM as part of project cost. Other suggestions include the need to develop Project Management policy and procedures, need for an implementation plan that includes a training plan, and the need to define what IES expects from the Divisions and Domains. A briefing on the PM Implementation plan and how training will be implemented should be presented to all employees. Also suggested was the need for the TC Strategic Leadership Team (SLT) to adopt the Project Management culture.

Staff Response

The follow-up interview with IES/Staff respondents acknowledged the lack of a formal Project Management policy but noted that the policy was being finalized to institutionalize Project Management practice in ACB. The Managing director promised to issue the policy before January 2004. The respondent however noted that managers did not need the policy to accept and adopt PM best practices. Managers and employees are expected to pay attention to direction and do the right thing by developing WBS and adopting Project Management principles.

Staff respondents confirmed the unavailability of an approved PM Process and a formal PM plan but stated that these documents which currently exist in draft forms will be available as soon as they are updated with current roles and responsibilities. The process guidance should help people to do their jobs more efficiently and effectively when ready.

Staff was split on whether anyone has been assigned as a responsible manager² for enterprise Project Management implementation to develop and maintain policies, standard processes and techniques, training, and other Project Management support roles. One response was no, “no one assigned for now”.

The respondent that answered no stated that the job was being done by a competent employee who has the expertise and power but have not been given the authority necessary to perform the role of leading the PM initiative. Therefore, IES needs to give the PM lead the authority to effectively perform and provide leadership in Project Management implementation, and needs to brief management at staff meeting as often as systems engineering currently does. IES needs to establish a Project Management charter with roles and responsibilities explained to all employees.

The reason for the yes response is that the respondent believes that a Project Management Lead has been assigned and currently performing the role effectively, notwithstanding the barriers to PM implementation. It is the view of the respondent that a charter will not be necessary because the job description for the Project Management Lead clarifies the role and responsibilities for implementing Project Management. The Project Management Lead

² Manager in this context refers to a role, NOT a position. You may call this role anything if you currently have it or give it any position if you plan to create it.

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ensures that the PM processes and policies are available and complied with by all divisions including those with PM experts and support personnel. IES may add resources to ACB-3 Project Management staff to support this initiative. The respondent noted that we must change our current ad hoc PM culture and operate in accordance with the new ATO COO's directive which requires performance measurements.

Staff respondent stated that FY 03 baseline resources are available to IES and it is helpful in explaining the work performance. All projects must develop schedules to monitor performance using the CPI, SPI, and EVM as may be required by IES. Implementing best practices in Project Management will help to respond to sponsors' questions relating to performance.

The study found that there was nothing in the culture to support implementation of Project Management but lots of opposition and resistance. The question many people ask the PM lead/advocate is "who are you? I have been doing it for years ...". Therefore, IES needs to explain the benefits of Project Management to managers to get their support – "½ day seminars will do nothing for managers". The study found that Staff intends to make resources available to provide tools and techniques, support, help, advise, guide, and training to managers and employees. He will thereafter hold all employees accountability for their roles in this initiative.

The survey found that no Project Management role currently exist in ACB. The survey also found that IES/Staff is aware that some employees are not clear on their roles and responsibilities. The respondent however stated that some roles have been defined – customer satisfaction is the responsibility of Domain Directors while managing resources is the responsibility of Division Managers. IES expectation is that Division Managers focus on resource training and cost while Domain Directors focus on program activities and technical work. The study found that these roles and responsibilities, and IES expectations are not acceptable to all Division Managers. IES needs to clarify these roles and responsibilities, and enforce accordingly.

The study found that the structure will not help Project Management implementation. The respondent stated the need to establish a Project Management structure with a directive policy and a guide or standard methodology to help practitioners in adopting PM principles. Someone has to be responsible for implementing Project Management. Another IES/Staff response to the impact of structure on PM implementation was the problem of implementing a matrix (weak) organization with DD as program managers and the Division Managers as the resource managers.

The study found that external customers/sponsors consider product delivery on time and on budget as the most important metrics to determine a project success. However, the Tech Center adds quality to the metrics which sometimes causes trade-off conflicts.

The study found that IES will be requiring PMP® certification for some jobs in the future. He is currently encouraging employees to get certified by explaining to them that he will be making it a requirement for Project Management jobs, just like Engineering and other

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disciplines. The categories that will be affected initially are group managers as well as IES staff that will help other employees. It may become a mandatory requirement for some other management positions that will be determined in due course. Promotion potential or monetary awards may also be used as incentives.

Currently, ACB has four certified PMP®s. IES has designated Project Management and systems engineering initiatives as priority programs and thus have specific performance requirements. Under this initiative, four employees are currently being sponsored under the ICIP program to take the PMP® certification course and test (excludes the seven reported by Division above). All Domain Directors will be expected to obtain the PMP® certification. The respondent noted that individual employees will be willing to take the test when they realize that the PMP® certification will enhance their individual career advancements.

The IES strategic goal is to have all five hundred and thirty-six (536) employees trained to understand the concept of Project Management. The priority listing for training and certification is DD, DM, Group Managers, Team Leads, and other employees. The respondent noted that budget will drive the training schedule. In-house sponsorship and the use of ICIP quota for PMP® certification training will be the source of funding for this initiative. Potential Project/Program Managers will be trained in Project Management principles to fill vacant positions as the current group of managers retire or move on to other jobs (effective succession planning).

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Assessment Project Approvals

<hr/> John Wiley, Managing Director (IES) Executive Sponsor	<hr/> Date
<hr/> Paula Nouragas, Staff Manager (ACB-3) Project Sponsor	<hr/> Date
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Attachments

Practitioner's Questionnaire

**Office of Innovations and Solutions
Project Management Practices
Baseline Data Collection/Survey Questionnaire**

The following questions are designed solely to collect data that will be used to establish a baseline for the level of project management practices. The analysis of this data will enable the Project Management Support Team to develop and implement appropriate training and development programs, and tools for implementing the integrated enterprise project management system. Therefore, pls provide responses to enhance the corporate PM practices.

- 1) Are you aware of the draft Project Management Policy and Guide? Yes/No.
 - a. If yes, have you tried to adopt or tailor it to your project management practices?
 - b. If not, do you currently adopt any standard process or methodology for managing your projects/programs? Pls describe briefly.
 - c. Is this process/methodology documented? Yes/No.
 - d. If no, how do people know what process to follow?
- 2) Do you have documented plan and schedules for managing your projects? Yes/No.
- 3) Do you use any software application or a project management software tool to track and manage your project/program schedule? Yes/No.
 - a. If yes, which application or software tool do you use?
 - b. If no, how do you manage your project/program schedules?
- 4) Do you have anyone assigned to create and manage your project/program schedules? Yes/No.
 - a. Does this person have any project management training? Yes/No.
 - b. Does this person have any training in the use of any PM software tool? Yes/No. If yes, pls list the tools.
- 5) How many Group Managers/employees in this division/domain have taken a minimum of 5-day PM training (Introduction)?
 - a. How many have taken courses beyond the 5-day introductory course?
 - b. How many Managers/employees in this division/domain are PMI certified? Pls list names.
 - c. How many of those not currently certified PMP®s are interested or working towards certification? Pls list names.
- 6) Pls recommend 2 – 3 names in priority order that need to participate in the following categories of training:
 - a. Introduction to Project Management/overview.

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- b. Intermediate & advanced PM courses.
 - c. PMP® certification test preparatory course.
 - d. PM software tools course.
- 7) How can the PM Team help you obtain the information you need to enhance your efficient and effective management of projects/programs?
- a. How do you currently obtain that information, electronic or paper?
 - b. Pls suggest any enhanced method to provide you that information.
- 8) What information do your internal and external customers need/expect from you and how often?
- a. How do you currently provide that information to your customer, electronic or paper?
 - b. Pls suggest any enhanced method that may help you provide that information to your customer.
- 9) Are your project activities and other work element currently aligned with the CAS/LDR codes? Yes/No.
- a. If yes, how do you input and track the time, electronic or paper?
 - b. If no, when and how do you plan to align your work to the CAS/LDR?
- 10) Considering the plan outlined in the Project Management Implementation briefing to Management Team on August 26, 03, what are your suggestions for applying the benefits of project management principles to managing corporate programs?
-

Follow-up Question based on responses to questions above:

- 11) How do you think the current organizational structure supports effective implementation of an Project Management System? Pls. suggest alternative structure if appropriate, considering the need for adequate skilled resources and funding necessary to perform PM activities.

Management Questionnaire

**Project Management Practices
Baseline Data Collection/Survey Questionnaire**

The following questions are designed solely to collect data that will be used to establish a baseline for the level of project management practices. The analysis of this data will enable the Project Management Support Team to develop and implement appropriate training and development programs, and tools for implementing the integrated enterprise project management system. Therefore, pls. provide responses to enhance the corporate PM practices.

- 12) Do you have any policy that requires the application of Project Management principles to all projects/programs? Yes/No.
- a. If yes, who has access to the policy and how?
 - b. If no, when do you intend to issue such a policy?
- 13) Do you have a standard Project Management guide, process, or methodology for adaptation by Project/Program Managers? Yes/No.

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- a. If yes, who has access to the document(s) and how?
 - b. If no, would you require one and how soon?
- 14) Do you have anyone assigned as a responsible manager³ for enterprise project management implementation including policies, standard processes, training, and other PM support activities? Yes/No.
- a. If yes, what are your expectations from the PM implementation manager as it currently exists if any or in the future if you plan to establish one?
 - b. Does this person currently have the authority in the form of a charter to implement project management?
 - c. If no to parent questions and sub-(b) above, pls. describe how you intend to successfully inculcate a project management culture into the organization as a good business practice?
- 15) What organizational cultures do you expect to support or impede the successful implementation of an enterprise Project Management System? How would you minimize or eliminate such impediments?
- 16) What are the current Project/Program Management roles in place? Is every one in clear on his/her roles and responsibilities relating to PM implementation? What are the rewards/consequences for compliance or non-compliance to standard policies and processes?
- 17) How do you think the current organizational structure supports effective implementation of a Project Management System? Pls. suggest alternative structure if appropriate, considering the need for adequate as skilled resources and funding.
- 18) What performance metrics do you consider as successfully managing projects to an end? What do customers or project/program sponsors consider as success?
- 19) Do you or will you be requiring PMP® certification for any positions in the future? Pls. list categories. How do you plan to encourage people that are not required to acquire the PMP® certification to get certified?
- 20) How many employees including managers do you expect to train in the next one to five years? How many of this number do you expect to be certified as PMP®s within the same period?

³ Manager in this context refers to a role, NOT a position. You may call this role anything if you currently have it or give it any position if you plan to create it.

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Project Management Maturity Model



Project Management Maturity Model

Levels of Project Management Maturity	Level 1	Level 2	Level 3	Level 4	Level 5
	Initial Process	Structured Process and Standards	Organizational Standards and Institutionalized Process	Managed Process	Optimized Process
Project Integration Management	No established practices, standards, or Project Office. Work performed in ad hoc fashion.	Basic, documented processes for project planning and reporting. Management only involved on high-visibility projects.	Project integration efforts institutionalized with procedures and standards. Project Office beginning to integrate project data.	Processes/standards utilized by all projects and integrated with other corporate processes/systems. Decisions based on performance metrics.	Project integration improvement procedures utilized. Lessons learned regularly examined and used to improve documented processes.
Project Scope Management	General statement of business requirements. Little/no scope management or documentation. Management aware of key milestones only.	Basic scope management process in place. Scope management techniques regularly applied on larger, more visible projects.	Full project management process documented and utilized by most projects. Stakeholders actively participating in scope decisions.	Project management processes used on all projects. Projects managed and evaluated in light of other projects.	Effectiveness and efficiency metrics drive project scope decisions by appropriate levels of management. Focus on high utilization of value.
Project Time Management	No established planning or scheduling standards. Lack of documentation makes it difficult to achieve repeatable project success.	Basic processes exist but not required for planning and scheduling. Standard scheduling approaches utilized for large, visible projects.	Time management processes documented and utilized by most projects. Organization wide integration includes inter-project dependencies.	Time management utilizes historical data to forecast future performance. Management decisions based on efficiency and effectiveness metrics.	Improvement procedures utilized for time management processes. Lessons learned are examined and used to improve documented processes.

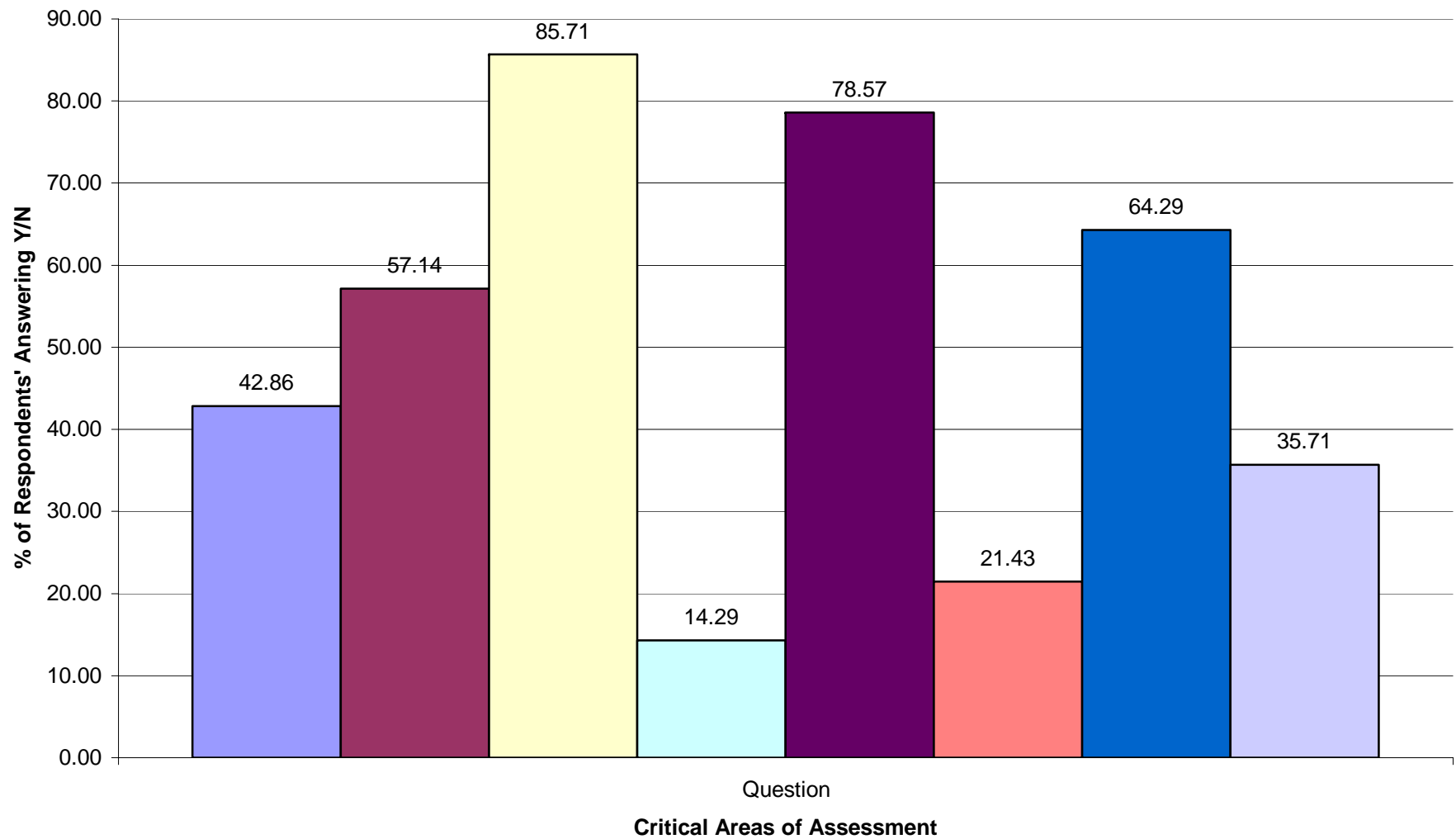
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Project Cost Management	No established practices or standards. Cost process documentation is ad hoc and individual project teams follow informal practices.	Processes exist for cost estimating, reporting, and performance measurement. Cost management processes are used for large, visible projects.	Cost processes are organizational standard and utilized by most projects. Costs are fully integrated into project office resource library.	Cost planning and tracking integrated with Project Office, financial, and human resources systems. Standards tied to corporate processes.	Lessons learned improve documented processes. Management actively uses efficiency and effectiveness metrics for decision-making.
Project Quality Management	No established project quality practices or standards. Management is considering how they should define "quality."	Basic organizational project quality policy has been adopted. Management encourages quality policy application on large, visible projects.	Quality process is well documented and an organizational standard. Management involved in quality oversight for most projects.	All projects required to use quality planning standard processes. The Project Office coordinates quality standards and assurance.	The quality process includes guidelines for feeding improvements back into the process. Metrics are key to product quality decisions.
Project Human Resource Management	No repeatable process applied to planning and staffing projects. Project teams are ad hoc. Human resource time and cost is not measured.	Repeatable process in place that defines how to plan and manage the human resources. Resource tracking for highly visible projects only.	Most projects follow established resource management process. Professional development program establishes project management career path.	Resource forecasts used for project planning and prioritization. Project team performance measured and integrated with career development.	Process engages teams to document project lessons learned. Improvements are incorporated into human resources management process.
Project Communications Management	There is an ad hoc communications process in place whereby projects are expected to provide informal status to management.	Basic process is established. Large, highly visible projects follow the process and provide progress reporting for triple constraints.	Active involvement by management for project performance reviews. Most projects are executing a formal project communications plan.	Communications management plan is required for all projects. Communications plans are integrated into corporate communications structure.	An improvement process is in place to continuously improve project communications management. Lessons learned are captured and incorporated.
Project Risk Management	No established practices or standards in place. Documentation is minimal and results are not shared. Risk response is reactive.	Processes are documented and utilized for large projects. Management consistently involved with risks on large, visible projects.	Risk management processes are utilized for most projects. Metrics are used to support risk decisions at the project and the program levels.	Management is actively engaged in organization-wide risk management. Risk systems are fully integrated with time, cost, and resource systems.	Improvement processes are utilized to ensure projects are continually measured and managed against value-based performance metrics.
Project Procurement/ Vendor Management	No project procurement process in place. Methods are ad hoc. Contracts managed at a final delivery level.	Basic process documented for procurement of goods and services. Procurement process mostly utilized by large or highly visible projects.	Process an organizational standard and used by most projects. Project team and purchasing department integrated in the procurement process.	Make/buy decisions are made with an organizational perspective. Vendor is integrated into the organization's project management mechanisms.	Procurement process reviewed periodically. On-going process improvements focus on procurement efficiency and effective metrics.

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Relative Y/N Response Analysis



Policy Y Policy N Plan Y Plan N SW Use Y SW Use N Assigned Scheduler Y Assigned Scheduler N

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Survey Response Rate

